

VACCINE AND ANTIVIRAL PRIORITIZATION ADVISORY COMMITTEE (VAPAC)
VAPAC COVID-19 Vaccine Allocation Recommendations
Meeting held December 3, 2020

KEY REFERENCES

- [How CDC is Making COVID-19 Vaccine Recommendations](#)
- [CDC ACIP Meeting Information](#)
- MMWR: [The Advisory Committee on Immunization Practices' Ethical Principles for Allocating Initial Supplies of COVID-19 Vaccine](#) (November 27, 2020)
- MMWR: [The Advisory Committee on Immunization Practices' Interim Recommendation for Allocating Initial Supplies of COVID-19 Vaccine](#) (December 3, 2020)
- Johns Hopkins: [Interim Framework for COVID-19 Vaccine Allocation and Distribution in the United States](#)
- NASEM: [Framework for Equitable Allocation of COVID-19 Vaccine](#)
- WHO: [Values Framework for the Allocation and Prioritization of COVID-19 Vaccination](#)
- WHO: [Roadmap for Prioritizing Uses of COVID-19 Vaccines in the Context of Limited Supply](#)

BACKGROUND

Purpose of VAPAC

The Vaccine and Antiviral Prioritization Advisory Committee (VAPAC) is composed of state, local, and tribal experts that will convene to provide recommendations to ensure fair and equitable vaccine allocation across the state of Arizona. The VAPAC is guided by the Arizona Crisis Standards of Care Plan as well as Pandemic Influenza and Emergency Response Plans.

Ethical Principles for Vaccine Allocation

The following set of principles will inform the VAPAC's vaccine allocation process. These principles are adapted from the National Academies of Sciences, Engineering, and Medicine *Framework for Equitable Allocation of COVID-19 Vaccine* (2020).

- Maximum benefit encompasses the obligation to protect and promote the public's health and its socioeconomic well-being in the short and long term.
- Equal concern requires that every person be considered and treated as having equal dignity, worth, and value.
- Mitigation of health inequities includes the obligation to explicitly address the higher burden of COVID-19 experienced by the populations affected most heavily, given their exposure and compounding health inequities.
- Fairness requires engagement with the public, particularly those most affected by the pandemic, and impartial decision making about and even-handed application of allocation criteria and priority categories.
- Transparency includes the obligation to communicate with the public openly, clearly, accurately, and straightforwardly about the allocation framework as it is being developed, deployed, and modified.
- Evidence-based expresses the requirement to base the allocation framework, including its goal, criteria, and phases, on the best available and constantly updated scientific information and data.

COVID-19 Vaccine is expected to be available in limited supply by December 2020

[Pfizer](#) and [Moderna](#) have both announced the development of safe and effective COVID-19 vaccines, which have demonstrated >90% efficacy during Phase 3 clinical trials. The FDA's Vaccines and Related Biological Products Advisory Committee ([VRBPAC](#)) will meet on December 10, 2020 to review the emergency use authorization (EUA) application for a COVID-19 vaccine from Pfizer. An EUA application from Moderna was submitted on November 30th and VRBPAC is scheduled to meet on December 17, 2020 to review their EUA application.. Per CDC, initial vaccine doses available under an EUA will be limited and state allocations are expected to be updated weekly, with a federal reserve available to ensure a second dose of the same vaccine is available 21-28 days after the initial dose. Preliminary estimates of an initial vaccine allocation for Arizona to begin planning include 212,000 Pfizer doses and 171,200 Moderna doses, although this number is subject to change (see **Table 1**). The CDC's Advisory Committee on Immunization Practices ([ACIP](#)) provided recommendations on November 23, 2020 on the following phased allocation of COVID-19 vaccines while supplies are restricted during Phase 1 (see **Figure 1**). Additional recommendations were provided during the [ACIP meeting on December 1, 2020](#). **Table 1P** below lists critical populations for consideration for an equitable allocation of vaccines during Phase 1A-1C.

Table 1: Preliminary Estimate of Arizona's Initial Vaccine Allocation

Type of Vaccine	Total December Allocation (estimate)		Minimum Order	Additional Information (see CDC Playbook pg 59-61)
Pfizer (Vaccine A)	212,000 doses	Week of 12/13: 58,500 Week of 12/20: 70,200 Week of 12/27: 83,850	975 doses	Requires ULT storage at -60 to -80F, dry ice to recharge thermal shipper, multidose vials, must thaw and reconstitute, second dose at 21 days
Moderna (Vaccine B)	171,200 doses	Week of 12/20: 118,800 Week of 12/27: 52,400	100 doses	Requires frozen storage at -2 to -8F, second dose at 28 days, may be available ~2 weeks behind the Pfizer vaccine

Figure 1: ACIP Proposed Interim Phase 1 Sequence

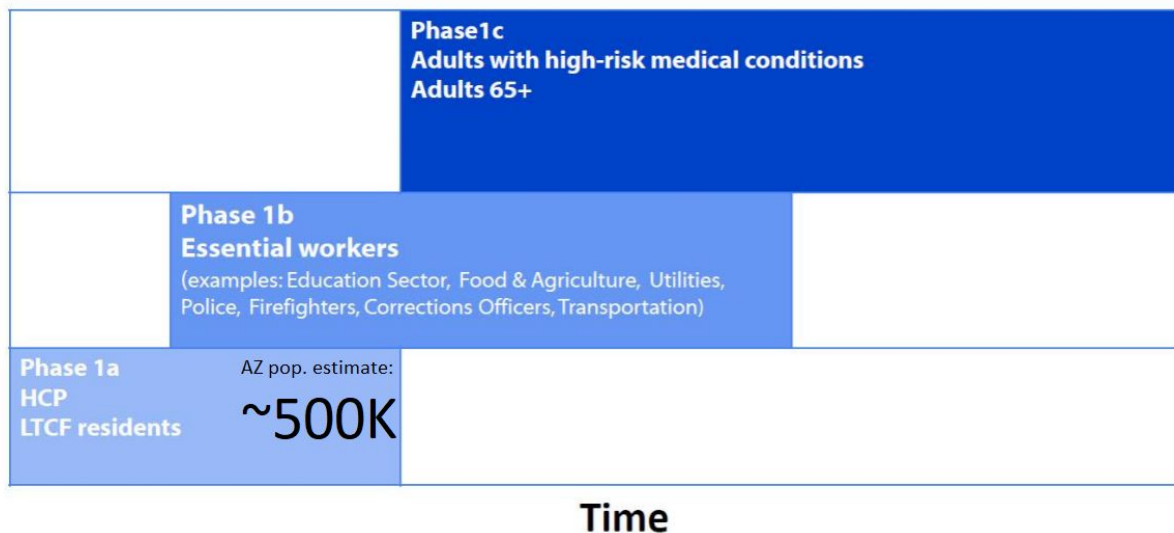


Table 1P: Phased Allocation Recommendation

Phase	Priority Population	AZ Estimated Population	Resources to vaccinate pop. group (Y/N)?
Health care personnel, including frontline workers at increased risk for COVID-19 and may have underlying medical conditions			
1A	Healthcare practitioners and technical occupations (doctors, nurses, pharmacists, EMTs, paramedics, dentists, etc.)	183,895	
1A	Healthcare support occupations (home health aides, nursing assistants, medical assistants, etc.)	70,166	
Long-term care residents at highest risk for severe disease and death, including staff who interact with vulnerable populations			
1A	Skilled nursing facility residents (all are enrolled in CDC Pharmacy /LTC Program)	32,284	CDC Pharmacy/LTC Program will cover ~146 SNFs, residents and staff
1A	Assisted living, independent living, HUD senior housing (all are enrolled in CDC Pharmacy/LTC Program)	67,416	CDC Pharmacy/LTC Program
1A	Assisted living, independent living, HUD senior living (not enrolled in CDC Pharmacy/LTC program)	18,954	
1A	DES group homes for individuals with developmental disabilities and ICF-IIDs, and staff	3,501	
1B	Adults with high risk medical conditions living in shelters or other congregate living settings	62,565	
Prioritized essential workers			
1B	Education and childcare providers (teachers and staff)	146,305	
1B	Protective service occupations (law enforcement, corrections, and other emergency response staff)	79,410	
Essential workers (based on CISA and EO 2020-12 definitions)			
1B	Power and utility workers	5,692	
1B	Food and agriculture related occupations (packaging and distribution workers, grocery and restaurant workers)	268,800	
1B	Transportation and material moving occupations (public transportation providers, airlines, gas stations, auto shop workers, and other transportation network providers)	227,680	
1B	State and local government workers that provide critical services for continuity of government	TBD by jurisdiction	
1B	Other essential workers (e.g., business and financial services, supply chain for critical goods, funeral services, critical trades, etc.)	TBD by jurisdiction	
People at increased risk for severe COVID-19 disease			
1C	Adults with underlying medical conditions (obesity, COPD, heart disease, diabetes, chronic kidney disease)	2,278,870	
1C	Adults 65+ years and older	1,264,218	
1C	Adults living in congregate settings	TBD by jurisdiction	

Note: These numbers are intended estimates that provide insight into the order of magnitude of each population group and do not represent exact numbers, nor are the categories mutually exclusive. Data are sourced from multiple national and state data sources (e.g., Bureau of Labor Statistics, state licensing boards)

Table 1S lists populations that may be at increased risk for acquiring and transmitting COVID-19 disease. These populations may be more socially vulnerable per the [CDC Social Vulnerability Index](#), and should be considered for sub-prioritization throughout all phases. This criteria has been provided as a proposed framework to ensure that all populations have equitable access to COVID-19 vaccination. These categories may be used to inform targeted strategies to improve access among underserved populations within each of the phased priority groups and should not be applied on a discriminatory basis.

Table 1S: Sub-Populations at Increased Risk for Acquiring or Transmitting COVID-19

Sub-Priority Population	AZ Estimated Population
Adults from racial and ethnic minority groups	3,207,971
Adults from tribal communities	299,123
Adults who are in correctional facilities/incarcerated	60,485
Adults experiencing homelessness/living in shelters	62,565
Adults attending colleges/universities	327,385
Adults living and working in other congregate settings	54,598
Adults living in rural communities	1,091,343
Adults with disabilities	946,481
Adults who are uninsured or under-insured	808,643
Adults who are non-English speaking	96,696
Adults with Medicaid (AHCCCS)	1,820,262
Pregnant women (<i>ACIP recommendations pending</i>)	72,500
Children age 17 and under (<i>ACIP recommendations pending</i>)	1,646,177

RECOMMENDED PHASED ALLOCATION

Phase 1A Initial Allocation Proposal

The proposed initial allocation of vaccines includes a pro rata allocation, based on the Phase 1A population estimates available by jurisdiction and a minimum order of doses per type of package. Per Arizona's [Draft COVID-19 Vaccination Plan](#) vaccines will be allocated to 18 local allocators, including county health departments and tribal entities that have requested a state allocation, as well as the [CDC Pharmacy Partnership for Long-term Care \(LTC\) Program](#) and Arizona State Public Health Laboratory for further distribution. It is important to note that a majority of tribes have requested to receive an allocation directly from Indian Health Services which will come from the federal vaccine allocation and not be calculated in the state's allocation. Other populations that will receive vaccine directly from the federal allocation include: Veterans' Administration, Department of Defense, Department of State, and the Federal Bureau of Prisons.

Based on CDC guidance, initial vaccine doses available under an EUA will be limited and state allocations are expected to be updated weekly, with a federal reserve available to ensure a second dose of the same vaccine is available 21-28 days after the initial dose. It is important to note that once the [CDC Pharmacy Partnership for LTC Program](#) is activated, it will provide vaccinations to protect vulnerable LTC staff and residents (at 25% of the LTC program allocation per week for ~4 weeks).

Initial and subsequent allocation recommendations are subject to change based on the availability of vaccines, packaging, and storage and handling recommendations.

Phase 1B-1C Recommendations

Per ACIP's proposed Phase 1 allocation sequence, Phase 1B will include adults with high risk medical conditions living in shelters or other congregate living settings and essential workers. Phase 1C will include adults 65 years and older, adults with underlying medical conditions that increase the risk of severe COVID-19 disease, and adults living in congregate living settings (see **Table 1P** for critical population estimates).

The Arizona Department of Health Services (ADHS) will be the lead agency responsible for monitoring vaccine uptake and coverage among critical populations. Once enough vaccines are available and it is determined there is sufficient vaccination coverage of Phase 1A populations, ADHS will inform local allocator jurisdictions when to initiate Phase 1B. During the transition to Phase 1B, local allocators should engage additional vaccine providers as needed to effectively target essential workers and vulnerable adults living in congregate settings. While supplies are still limited during Phase 1B, vaccines may be prioritized for essential workers and adults living in congregate settings that report a history of underlying medical conditions that increase the risk of severe COVID-19 disease. Education and childcare employees and those in protective service occupations should be prioritized by local allocators prior to moving into other essential worker categories.

When ADHS and local allocator partners determine there is sufficient coverage among Phase 1B populations, ADHS will inform local allocator jurisdictions to begin Phase 1C.

During each phase, local allocator partners must be prepared for high demand and low demand scenarios and implement strategies to scale up vaccine administration operations as needed. While vaccine supplies are limited initially, local allocator partners will be responsible for implementing fair and equitable registration and screening processes that are consistent with ACIP and VAPAC recommendations to ensure consistent standards statewide. Local allocator partners must routinely monitor patient volume, registration requests, and wait times to determine if vaccine administration site operations must be adjusted to appropriately manage traffic and meet supply and demand. Furthermore, if there is concern regarding vaccine hesitancy among critical populations, ADHS and local allocator partners must collaborate with key providers and community-based organizations to improve community engagement and vaccine uptake.

Initial and subsequent allocations are subject to change based on the availability of vaccines, packaging, storage, and handling recommendations.

Phase 2-3 Recommendations

Once enough COVID-19 vaccine supplies are available, providers who have completed the ADHS onboarding process will be eligible to order and receive vaccines to immunize the population at large. During the transition from Phase 1C to Phase 2, it will still be important to monitor vaccination coverage and provide targeted vaccinations to populations who are at higher risk for COVID-19, prioritizing those populations in Table 1S. ADHS will continue to monitor vaccination data reporting and identify gaps and community engagement strategies to reduce vaccine hesitancy and increase vaccine uptake in underserved communities. ADHS will continue to work collaboratively with county health departments, tribal partners, vaccine providers, and community partners to implement strategies to improve vaccine coverage across Arizona.

Data Appendix

Phase 1A - Healthcare Practitioners and Technical Occupations

Data description: Healthcare Practitioner and Technical Occupation worker population estimates were obtained from two sources. County-level data was obtained using ArcGIS Community Analyst to query the 2020/2025 Esri Updated Demographics by the Standard Occupational Classification (SOC) category 'Healthcare Practitioners and Technical Occupations' (SOC Code 29-0000) for each county. This dataset contains demographic forecasts as point estimates representing July 1 of the current and forecast years. To learn about the methodology used to create this dataset, please explore this [ESRI white paper](#). Census tract-level data was queried from Claritas Pop-Facts Premier demographics data using the same SOC category. Claritas Pop-Facts Premier provides demographic data based on U.S. Census and American Community Survey (ACS) data as current year estimates and five-year projections. Refer to the Claritas Demographic Update Methodology document for more detailed information, which can be obtained from Claritas directly.

This major group comprises the following occupations: Chiropractors ; Dentists, General ; Oral and Maxillofacial Surgeons ; Orthodontists ; Prosthodontists ; Dentists, All Other Specialists ; Dietitians and Nutritionists ; Optometrists ; Pharmacists ; Physician Assistants ; Podiatrists ; Occupational Therapists ; Physical Therapists ; Radiation Therapists ; Recreational Therapists ; Respiratory Therapists ; Speech-Language Pathologists ; Exercise Physiologists ; Therapists, All Other ; Veterinarians ; Registered Nurses ; Nurse Anesthetists ; Nurse Midwives ; Nurse Practitioners ; Audiologists ; Anesthesiologists ; Family Medicine Physicians ; General Internal Medicine Physicians ; Obstetricians and Gynecologists ; Pediatricians, General ; Psychiatrists ; Physicians, All Other; and Ophthalmologists, Except Pediatric ; Surgeons, Except Ophthalmologists ; Dental Hygienists ; Acupuncturists and Healthcare Diagnosing or Treating Practitioners, All Other ; Clinical Laboratory Technologists and Technicians ; Cardiovascular Technologists and Technicians ; Diagnostic Medical Sonographers ; Nuclear Medicine Technologists ; Radiologic Technologists and Technicians ; Magnetic Resonance Imaging Technologists ; Emergency Medical Technicians and Paramedics ; Dietetic Technicians ; Pharmacy Technicians ; Psychiatric Technicians ; Surgical Technologists ; Veterinary Technologists and Technicians ; Ophthalmic Medical Technicians ; Licensed Practical and Licensed Vocational Nurses ; Opticians, Dispensing ; Orthotists and Prosthetists ; Hearing Aid Specialists ; Medical Dosimetrists, Medical Records Specialists, and Health Technologists and Technicians, All Other ; Athletic Trainers ; Genetic Counselors ; Health Information Technologists, Medical Registrars, Surgical Assistants, and Healthcare Practitioners and Technical Workers, All Other.

For further information on how the data is pulled, please explore this [ESRI white paper](#).

Phase 1A - Healthcare Support Occupations

Data description: Healthcare Support Occupation worker population estimates were obtained from two sources. County-level data was obtained using ArcGIS Community Analyst to query the 2020/2025 Esri Updated Demographics by the Standard Occupational Classification (SOC) category 'Healthcare Support Occupations' (SOC Code 31-0000) for each county. This dataset contains demographic forecasts as point estimates representing July 1 of the current and forecast years. To learn about the methodology used to create this dataset, please explore this [ESRI white paper](#). Census tract-level data was queried from Claritas Pop-Facts Premier demographics data using the same SOC category. Claritas Pop-Facts premier provides demographic data based on U.S. Census and American Community Survey (ACS) data

as current year estimates and five-year projections. Refer to the Clarias Demographic Update Methodology document for more detailed information, which can be obtained from Claritas directly.

This major group comprises the following occupations: Home Health and Personal Care Aides ; Nursing Assistants ; Orderlies ; Psychiatric Aides ; Occupational Therapy Assistants ; Occupational Therapy Aides ; Physical Therapist Assistants ; Physical Therapist Aides ; Massage Therapists ; Dental Assistants ; Medical Assistants ; Medical Equipment Preparers ; Medical Transcriptionists ; Pharmacy Aides ; Veterinary Assistants and Laboratory Animal Caretakers ; Phlebotomists ; Healthcare Support Workers, All Other.

Phase 1A - Skilled nursing facility residents

CDC is partnering with CVS and Walgreens to offer on-site COVID-19 vaccination services for residents of nursing homes and assisted living facilities once vaccination is recommended for them.

The Pharmacy Partnership for Long-term Care (LTC) Program provides end-to-end management of the COVID-19 vaccination process, including cold chain management, on-site vaccinations, and fulfillment of reporting requirements, to facilitate safe vaccination of this patient population, while reducing burden on long-term care facilities (LTCFs) and jurisdictional health departments. LTCF staff who have not received COVID-19 vaccine can also be vaccinated as part of the program. This program provides critical vaccination services and is free of charge to facilities.

Data description:

In Arizona, this will cover ~146 Skilled Nursing Facilities' residents and staff.

Phase 1A - Assisted living, independent living, and HUD senior housing

CDC is partnering with CVS and Walgreens to offer on-site COVID-19 vaccination services for residents of nursing homes and assisted living facilities once vaccination is recommended for them.

The Pharmacy Partnership for Long-term Care (LTC) Program provides end-to-end management of the COVID-19 vaccination process, including cold chain management, on-site vaccinations, and fulfillment of reporting requirements, to facilitate safe vaccination of this patient population, while reducing burden on long-term care facilities (LTCFs) and jurisdictional health departments. LTCF staff who have not received COVID-19 vaccine can also be vaccinated as part of the program. This program provides critical vaccination services and is free of charge to facilities.

Data description:

In Arizona, this will cover ~622 ALFs, residents and staff.

Assisted living, independent living, HUD senior living (not enrolled in CDC Pharmacy/LTC program)

Data description:

The number of licensed beds for assisted living facilities not enrolled in the Pharmacy Partnership for Long-term Care (LTC) Program.

[Phase 1A - DES group homes, ICF-IIDs for individuals with developmental disabilities](#)

Data description:

Data supplied by the Arizona Department of Economic Security

[Phase 1B - Shelters for people experiencing homelessness and other congregate living settings with vulnerable populations](#)

Data description:

ADHS has developed a Priority Populations Worksheet (see Table 1S) based on the CDC's COVID-19 Vaccination Program Interim Playbook for Jurisdiction Operations. Estimates are based on AZ estimated population 2.2% of the US population.

[Phase 1B- Protective Service Occupations](#)

Data description: Protective Service Occupations worker population estimates were obtained from two sources. County-level data was obtained using ArcGIS Community Analyst to query the 2020/2025 Esri Updated Demographics by the Standard Occupational Classification (SOC) category 'Healthcare Support Occupations' (SOC Code 33-0000) for each county. This dataset contains demographic forecasts as point estimates representing July 1 of the current and forecast years. To learn about the methodology used to create this dataset, please explore this [ESRI white paper](#). Census tract-level data was queried from Claritas Pop-Facts Premier demographics data using the same SOC category. Claritas Pop-Facts premier provides demographic data based on U.S. Census and American Community Survey (ACS) data as current year estimates and five-year projections. Refer to the Claritas Demographic Update Methodology document for more detailed information, which can be obtained from Claritas directly.

This major group comprises the following occupations: First-Line Supervisors of Correctional Officers ; First-Line Supervisors of Police and Detectives ; First-Line Supervisors of Firefighting and Prevention Workers ; Miscellaneous First-Line Supervisors, Protective Service Workers ; Firefighters ; Fire Inspectors and Investigators ; Forest Fire Inspectors and Prevention Specialists ; Bailiffs ; Correctional Officers and Jailers ; Detectives and Criminal Investigators ; Fish and Game Wardens ; Parking Enforcement Workers ; Police and Sheriff's Patrol Officers ; Transit and Railroad Police ; Animal Control Workers ; Private Detectives and Investigators ; Gambling Surveillance Officers and Gambling Investigators ; Security Guards ; Crossing Guards and Flaggers ; Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers ; Transportation Security Screeners ; School Bus Monitors and Protective Service Workers, All Other.

[Phase 1B - Power and utility workers](#)

This data was sourced directly from Arizona Public Service (APS), Southwest Gas, Tucson Electric Power (TEP), Salt River Project (SRP), and Arizona CO-OPs.

Essential Workers: Those workers in the energy sector who perform and support critical work processes such as monitoring, operating, and maintaining the safety and reliability of the energy system, including power generation, transmission, distribution, supply chain and power trading. This includes personnel who support the health, safety and security of essential workers, perform critical work processes that

cannot be accomplished from remote locations and personnel who work in a location that cannot be isolated from other work groups, contractors and customers.

Phase 1B - Food and agriculture related occupations

This major group comprises the following occupations: Chefs and Head Cooks ; First-Line Supervisors of Food Preparation and Serving Workers ; Cooks, Fast Food ; Cooks, Institution and Cafeteria ; Cooks, Private Household ; Cooks, Restaurant ; Cooks, Short Order ; Cooks, All Other ; Food Preparation Workers ; Bartenders ; Fast Food and Counter Workers ; Waiters and Waitresses ; Food Servers, Nonrestaurant ; Dining Room and Cafeteria Attendants and Bartender Helpers ; Dishwashers ; Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop ; Food Preparation and Serving Related Workers, All Other

Phase 1B - Transportation and material moving occupations

This major group comprises the following occupations: Aircraft Cargo Handling Supervisors ; First-Line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Supervisors ; Airline Pilots, Copilots, and Flight Engineers ; Commercial Pilots ; Air Traffic Controllers ; Airfield Operations Specialists ; Flight Attendants ; Ambulance Drivers and Attendants, Except Emergency Medical Technicians ; Driver/Sales Workers ; Heavy and Tractor-Trailer Truck Drivers ; Light Truck Drivers ; Bus Drivers, Transit and Intercity ; Passenger Vehicle Drivers, Except Bus Drivers, Transit and Intercity ; Motor Vehicle Operators, All Other ; Locomotive Engineers ; Rail Yard Engineers, Dinkey Operators, and Hostlers ; Railroad Brake, Signal, and Switch Operators and Locomotive Firers ; Railroad Conductors and Yardmasters ; Subway and Streetcar Operators ; Rail Transportation Workers, All Other ; Sailors and Marine Oilers ; Captains, Mates, and Pilots of Water Vessels ; Motorboat Operators ; Ship Engineers ; Bridge and Lock Tenders ; Parking Attendants ; Automotive and Watercraft Service Attendants ; Traffic Technicians ; Transportation Inspectors ; Passenger Attendants ; Aircraft Service Attendants and Transportation Workers, All Other ; Conveyor Operators and Tenders ; Crane and Tower Operators ; Dredge Operators ; Hoist and Winch Operators ; Industrial Truck and Tractor Operators ; Cleaners of Vehicles and Equipment ; Laborers and Freight, Stock, and Material Movers, Hand ; Machine Feeders and Offbearers ; Packers and Packagers, Hand ; Stockers and Order Fillers ; Gas Compressor and Gas Pumping Station Operators ; Pump Operators, Except Wellhead Pumpers ; Wellhead Pumpers ; Refuse and Recyclable Material Collectors ; Tank Car, Truck, and Ship Loaders ; Material Moving Workers, All Other

Phase 1B - Education and childcare providers

This data was requested from the Arizona Department of Education.

Data description:

It sums the distinct educator count provided by district associated schools for both classified and certified position types.

Phase 1C - Adults with underlying medical conditions (obesity, COPD, heart disease, diabetes, chronic kidney disease) and Adults 65+ years and older

Please see ["Estimated County-Level Prevalence of Selected Underlying Medical Conditions Associated with Increased Risk for Severe COVID-19 Illness — United States, 2018"](#) for a detailed description on

data methodology. Additional information was provided on adults age 65 years and older from US Census Bureau data sources.

[Table 1S: Sub-Populations at Increased Risk for Acquiring or Transmitting COVID-19](#)

ADHS has developed a Priority Populations Worksheet (see Table 1S) based on the CDC's COVID-19 Vaccination Program Interim Playbook for Jurisdiction Operations. Estimates are based on AZ estimated population 2.2% of the US population.